

# SpecRite

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from National Guard Products, Inc.

## International Building Code 2006 *Revisions you need to know about*

So you've finally mastered an understanding of the IBC 2003 and know what to specify or provide to comply; now another little curveball is thrown, a revision to the IBC, dated 2006.

Hopefully in the next few minutes you'll achieve an understanding of the revisions and how they affect fire and smoke door requirements.

First, Fire Doors, requirements remain the same, UL10C Positive Pressure, but Fire Door glazing requirements have had significant changes!

Next, Smoke and Draft Control 'S' Label Doors; yes, they are still required where labeled fire door assemblies occur in corridors and smoke barriers; there are some new requirements at the bottom of the door, where doors are located in areas pressurized for smoke control.

As an industry leader, National Guard Products is keeping you informed of these changes and has product solutions that enable you to easily comply with the 2006 revisions to the IBC.



### Smoke and draft control doors

In 2003 my article, "Clearing up the Smoke" examined the 2003 IBC requirement for smoke and draft control doors to be tested to UL1784 with an artificial bottom seal in place; which meant taping the bottom of the door shut, allowing measurement of the leakage rate at the head and jambs. The 2003 IBC dictated the maximum air leakage rate and the test pressure to be used. IBC 2006 is revised and only states: "tested in accordance with UL1784." However, a new sentence has been added which reads: "Installation of smoke doors shall be in accordance with NFPA 105."

So here we go, off to learn about NFPA 105 requirements (try to hold your enthusiasm!). For starters, be sure to use the 2003 edition. NFPA 105 is entitled "Standard for the Installation of Smoke Door Assemblies". In chapter 4, Testing and Installation, it provides the criteria for maximum air leakage, and the test pressures to be used. In section 4.3, "Air Leakage Test", it requires testing in accordance with (you guessed it) UL1784; but some things are different.

First: Sec. 4.3.2, re: testing, states "Smoke door assemblies intended to be installed where pressurization is provided to control smoke movement, shall NOT have an artificial [Yep, the tape!] bottom seal installed during the test." because a real door bottom seal will now be required to be used in actual application.

Second: Sec. 4.5.6, re: actual installation, states "Smoke door assemblies installed where pressurization is provided to restrict smoke movement, shall be required to have a bottom seal." [a REAL door bottom!]. Pressurized areas such as stairwells and corridors, are typically controlled by the HVAC system. You may need to ask the architect where they occur.

An NGP door bottom seal may be used on any Smoke and Draft Control 'S' label door if desired; but it is now required when the door is in an area that is pressurized .

To control air leakage at the bottom of doors in pressurized areas, NGP now has a UL Cat. H "Smoke and Draft Control" rating, for use on 'S' label doors, on all of our fire-rated Automatic Door Bottoms, Sweeps and Shoes. Use these with our 90 UL Cat. H "Smoke and Draft Control" classified perimeter seals and astragals for use on 'S' label doors.

## Fire Door Glazing

A permanent marking issued by an approved third party inspection agency has been required on each piece of fire-resistance-rated glass for some time to indicate the fire rating. IBC 2006 institutes new Identification marking symbols to be added to fire-resistance-rated glazing.

IBC 2006 states "the label shall bear the following four-part identification: "D - H or NH - T or NT - XXX." "D" indicates that the glazing shall be used in fire door assemblies and that the glazing meets the fire resistance requirements of the test standard. "H" shall indicate that the glazing meets the hose stream requirements of the test standard. "NH" shall indicate that the glazing does not meet the hose stream requirements of the test. "T" shall indicate that the glazing meets the temperature requirements of Section 715.4.4.1. "NT" shall indicate that the glazing does not meet the temperature requirements of Section 715.4.4.1. The placeholder "XXX" shall specify the fire-protection-rating period, in minutes.

It is important to know that each piece of fire-resistance-rated glass you are supplying is permanently marked to meet the IBC 2006

requirements including the new four-part identification to avoid any compliance issues with the authority having jurisdiction once installed on a job. You can rest assured that National Guard Products has incorporated these new requirements; and beginning in June the permanent marking on all fire-resistance-rated glass we ship will include the new four part identification symbols required to comply with IBC 2006.

## Safety Glazing

Safety glazing requirements are found in chapter 24 of the IBC. The 2003 version allowed wired glass, in other than Group E (Educational) occupancies. The 2006 version no longer references wired glass; requiring all Safety glazing to comply with the CPSC (Consumer Product Safety Commission) 16 CFR, Part 1201, Category I or II. Safety glazing is required by the IBC in Hazardous locations, which are defined in section 2406; the very first item is: "Glazing in swinging doors".

Standard wired glass was previously allowed in fire doors, and was allowed to meet ANSI Z97.1 instead of CPSC 16 CFR 1201. In 2003 this remained, except for educational occupancies, but in the 2006 IBC it has been removed for all occupancies.

National Guard Products offers a new laminated wired glass, Pilkington Pyroshield™ Plus which is 7/16" thick (requiring a lite kit for thicker glass) which meets CPSC 16 CFR 1201, Category I safety glazing classification allowing up to 24" x 54" installations in doors.

FireLite® NT and FireLite® Plus glass ceramic are offered by National Guard Products which meet CPSC 16 CFR 1201, Category I and II allowing them to be used in doors including sizes larger than 9 square feet (24" x 54").

The IBC also requires each piece of safety glazing to be permanently identified with the glazing standard it complies with; which is done on every piece shipped by NGP.

Adoption of the revised 2006 IBC may not yet have occurred in your state or local area; it is most likely slated for adoption in the near future. Prepare now by understanding and implementing the changes necessary to comply with the new requirements of IBC 2006. National Guard Products will continue to update our products, UL listings and markings to keep you in compliance with code requirements, now and into the future.

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Spec Rite is designed as a vehicle to provide information to Architects and Specification Writers to make them better informed and to make their job easier.

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